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## 3次元映像が心拍数および皮膚血流量に及ぼす影響

井 上 裕美子

情報科学部 情報システム学科

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Effects of three-dimensional image on heart rate and skin blood flow

by

Yumiko INOUE

Department of Information Systems, Faculty of Information Science

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### Abstract

We examined effects of three-dimensional image with head mounted display (HMD) on heart rate (HR) and skin blood flow (SkBF) that measured by laser Doppler technique. Ten healthy volunteers participated in two experimental conditions while they watched three-dimensional image with head mounted display (3D condition) or they watched two-dimensional image (2D condition). The subject rested for 3 minutes with HMD and then watched 2D (or 3D) image for 15 minutes. Comparing HR during 2D condition with that during 3D condition, there was no difference between both conditions. However, in both conditions, HR decreased as soon as the image was shown ( $p<0.01$ ). The change of SkBF during 3D condition tended to increase with experiment time, whereas that during 2D condition tended to decrease with experiment time, which was evidenced by a significant interaction effect condition by time ( $p<0.05$ ).